determining the positions of the recognised words in said processing application program means, means for monitoring changes in the positions of the recognised words, and [link] means for forming link data linking the audio [identifiers] data to the [character component positions in the character string and for updating said link data after processing to maintain the link between the audio identifiers and the character component positions in the processed character string] recognised words, said link data comprising the audio identifiers and the determined positions of corresponding recognised words, said interface application program means including means for updating said link data in response to monitored changes in positions of the recognised words;

display means for displaying the [characters] recognised words received and processed by said processing application program means;

user operable selection means for selecting [characters] at least one word in the displayed [characters for audio playback, where said link data identifies] words, said interface application program means including means for identifying any [selected] audio components, if present, which are linked to the at least one selected [characters] word; and

audio playback means for playing back [the] any [selected] identified audio components in the order of the [character component] word positions in the [character] word string or the processed [character] word string.

2. [Once Amended] Data processing apparatus as claimed in claim 1 wherein said storage means also stores the [characters,] recognised words and the link data [and the audio data], [and] the apparatus including storage reading means for reading the stored [characters] recognised words into said processing application program means and for reading the stored link data for use by said [processing] interface application program means [and said link means, whereby said user operable selection means can select displayed characters for audio playback and said audio playback means reads and plays back the audio components corresponding to the selected characters].

3. [Once Amended] Data processing apparatus as claimed in claim 1 including user operable correction means for selecting [and correcting any] a displayed recognised [characters] word which [have] has been incorrectly recognised[,]; correction audio playback means for

controlling said audio playback means to play back any audio component corresponding to the selected [characters] word to aid correction; and speech recognition update means for sending the corrected [characters] word and the audio identifier for the audio component corresponding to the corrected [character] word to the speech recognition engine.

4. [Once Amended] Data processing apparatus as claimed in claim 3 wherein said recognition data includes alternative [characters] words, said display means including means to display a choice list comprising the alternative [characters] words, and said selecting and correcting means [including] includes means to select one of the alternative [characters] words or to enter a new [character] word.

5. [Once Amended] Data processing apparatus as claimed in claim 1 wherein said [link means comprises memory means storing a list of character locations in the character string and] audio identifiers comprise a list of positions of the corresponding audio components in the audio data.

6. [Once Amended] Data processing apparatus as claimed in claim 5 wherein said [character] word string is formed of a plurality of separately dictated passages of [characters] words, [the apparatus including audio] said storage means [storing] stores said audio data for each dictated passage of [characters] words in a separate file, and said memory means [storing] stores a list identifying the files and positions in the files of the audio components in said audio data corresponding to the word locations in the [character] word string.

7. [Once Amended] Data processing apparatus as claimed in claim 1 wherein said recognition data includes recognition status indicators to indicate whether each recognised [character] word is a [character] word finally selected as recognised by said speech recognition engine or a [character] word which is the most likely at that time but which is still being recognised by said speech recognition engine, the apparatus including status detection means for detecting said recognition status indicators, and display control means to control said display means to display [characters] words which are still being recognised differently to [characters]

words which have been recognised, said [link] interface application program means being responsive to said recognition status indicators to link the recognised [characters] words to the corresponding audio component in the audio data.

8. [Once Amended] Data processing apparatus as claimed in claim 1 including contextual update means operable by a user to select recognised [characters] words which are to be used to provide contextual correcting parameters to said speech recognition engine, and to send said contextual correcting parameters to said speech recognition engine.

9. [Once Amended] Data processing apparatus as claimed in claim 1 wherein said recognition data includes a likelihood indicator for each [character] word in the [character] word string indicating the likelihood that the [character] word is correct, and said link means stores the likelihood [confidence] indicators, the apparatus including

automatic error detection means for detecting possible errors in recognition of [characters] words in the recognised [characters] words by scanning the likelihood indicators in said link means for the recognised [characters] words and detecting if the likelihood indicator for a [character] word is below a likelihood threshold, whereby said display means highlights the [character] word having a likelihood indicator below the likelihood threshold;

second user operable selection means for selecting a [character] word to replace an incorrectly recognised [character] word highlighted in the recognised [characters] words; and

correction means for replacing the incorrectly recognised [character] word with the selected [character] word to correct the recognised [characters] words.

10. [Once Amended] Data processing apparatus as claimed in claim 1 including

file storage means for storing the recognised [characters] words in a file;

means for selectively disabling one of the receipt of the recognised [characters] words by said processing application program means and the recognition of speech by said speech recognition engine for a period of time, means for storing the audio data for the period of time in said storage means as an audio message associated with the file; and

storage reading means for reading said file for input to said processing application

program means, and for reading said audio message for playback by said audio playback means.

11. [Once Amended] Data processing apparatus as claimed in claim 10 wherein said storage reading means is controllable by a user to read said audio message at any time after said file has been input to said processing application program means until said processing application program means is no longer processing said file.

12. [Once Amended] Data processing apparatus as claimed in claim 1 wherein said user operable selection means is operative to allow a user to select to playback the audio data for the most recent passage of dictated [characters] words, or to select [characters] words and play back the corresponding audio components.

13. [Once Amended] A data processing arrangement comprising:

a data processing apparatus, the data processing apparatus comprising:

input means for receiving recognition data [and corresponding audio data] from a speech recognition engine and corresponding audio data, said recognition data including a string of recognised [characters] words and audio identifiers identifying audio components corresponding to [a character component of the] each recognised [characters] word;

[processing] interface application program means comprising means for receiving [and processing] the input recognised words, means for placing the recognised words into positions in text in a processing application program means to allow the processing of the recognised words to change the positions of [characters to at least one of replace, insert move and position] the recognised [characters] words to form a processed [character] word string[;], means for determining the positions of the recognised words in said processing application program means, means for monitoring changes in the positions of the recognised words, and [link] means for forming link data linking the audio [identifiers] data to the [character component positions in the character string and for updating said link data after processing to maintain the link between the audio identifiers and the character component positions in the processed character string] recognised words, said link data comprising the audio identifiers and the determined positions of corresponding recognised words, said interface application program means including means for

updating said link data in response to monitored changes in positions of the recognised words;

storage means for storing said recognition data and audio data received from said input means, and for storing said link data;

display means for displaying the [characters] recognised words received and processed by said processing application program means;

user operable selection means for selecting [characters] at least one word in the displayed [characters for audio playback, where said link data identifies] words, said interface application program means including means for identifying any [selected] audio components, if present, which are linked to the at least one selected [characters] word; and

audio playback means for playing back [the] any [selected] identified audio components in the order of the [character component] word positions in the [character] word string or the processed [character] word string; and

B1

an editor work station comprising:

data reading means for reading the [characters] words, link data, and audio data from said data processing apparatus;

editor processing means for processing the [characters] words;

editor link means for linking the audio data to the [character component position] word positions using the link data;

editor display means for displaying the [characters] words being processed;

editor correction means for selecting and correcting any displayed [characters] words which have been incorrectly recognised;

editor audio playback means for playing back [any] an audio component corresponding to [the] any selected [characters] words to aid correction;

editor speech recognition update means for storing the corrected [characters] words and the audio identifier for the audio component corresponding to the corrected [character] word in a [character] word correction file; and

data transfer means for transferring the [character] word correction file to said data processing apparatus for later updating of models used by said speech recognition engine;

said data processing apparatus including correction file reading means for reading said [character] word correction file to pass the data contained therein to said speech recognition

S4

engine for the updating of the models used by said speech recognition engine.

~~14.~~ 16. [Once Amended] A data processing arrangement as claimed in claim ~~13~~ 15 wherein said recognition data includes alternative [characters] words, said editor display means including means to display a choice list comprising the alternative [characters] words, and said editor correcting means [including] includes means to select one of the alternative [characters] words or to enter a new [character] word.

~~15.~~ 17. [Once Amended] A data processing arrangement as claimed in claim ~~13~~ 15 including editor contextual update means operable by a user to select recognised [characters] words which are to be used to provide contextual correcting parameters to said speech recognition engine of said data processing apparatus, and to store said contextual correcting parameters in a contextual correction file;

said data transfer means being responsive to the contextual correction file to transfer the contextual correction file to said data processing apparatus for later updating of models used by said speech recognition engine;

said correction file reading means of said data processing apparatus being responsive to the contextual correction file to read the contextual correction file to pass the data contained therein to said speech recognition engine.

~~16.~~ 18. [Once Amended] A data processing arrangement as claimed in claim ~~13~~ 15 wherein said recognition data includes a likelihood indicator for each [character] word in the [character] word string indicating the likelihood that the [character] word is correct, and said link data includes the likelihood indicators, said editor work station including editor automatic error detection means for detecting possible errors in recognition of [characters] words in the recognised [characters] words by scanning the likelihood indicators in said recognition data for the [characters] words and detecting if the likelihood indicator for a [character] word is below a likelihood threshold, whereby said editor display means highlights [characters] words having a likelihood indicator below the likelihood threshold;

editor selection means for selecting a [character] word to replace an incorrectly

55

recognised [character] word highlighted in the text; and

second editor correction means for replacing the incorrectly recognised [character] word with the selected [character] word to correct the recognised [characters] words.

19 15
~~17~~. [Once Amended] A data processing arrangement as claimed in claim ~~13~~ wherein said data processing apparatus includes file storage means for storing the recognised [characters] words in a file;

means for selectively disabling one of the receipt of the recognised [characters] words by said processing application program means and the recognition of speech by said speech recognition engine for a period of time; [with]

means for storing the audio data [for] during the period of time in said storage means as an audio message associated with the [document] file; and

storage reading means for reading said [document] file for input to said processing application program means, and for reading said audio message for playback by said audio playback means;

said editor work station including audio message reading means for reading the audio message associated with [characters] words being processed by said editor processing means for playback by said editor audio playback means.

20 19
~~18~~. [Once Amended] A data processing arrangement as claimed in claim ~~17~~ wherein said audio message reading means is controllable by a user to read said audio message at any time the associated [characters] words are being processed by said editor processing means.

21 15
~~19~~. [Once Amended] An editor work station for use with the data processing arrangement as claimed in claim ~~13~~, said editor work station comprising:

data reading means for reading the [characters] words, link data, and audio data from said data processing apparatus;

editor processing means for processing [characters] words;

editor link means for linking the audio data to the [character component position] word positions using the link data;

editor display means for displaying the read [characters] words;

editor correction means for selecting and correcting any displayed [characters] words which have been incorrectly recognised;

editor audio playback means for playing back any audio component corresponding to the selected [characters] words to aid correction;

editor speech recognition update means for storing the corrected [character] word and the audio identifier for the audio component corresponding to the corrected [character] word in a character correction file; and

data transfer means for transferring the [character] word correction file to said data processing apparatus for later updating of models used by said speech recognition engine.

20. [Once Amended] An editor work station as claimed in claim ~~19~~ 21 wherein said recognition data includes alternative [characters] words, said editor display means including means to display a choice list comprising the alternative [characters] words, and said editor correcting means [including] includes means to select one of the alternative [characters] words or to enter a new [character] word.

21. [Once Amended] An editor work station as claimed in claim ~~19~~ 21 including editor contextual update means operable by a user to select recognised [characters] words which are to be used to provide contextual correcting parameters to said speech recognition engine of said data processing apparatus, and to store said contextual correcting parameters in a contextual correction file;

said data transfer means being responsive to the contextual correction file to transfer the contextual correction file to said data processing apparatus for later updating of models used by said speech recognition engine;

said correction file reading means of said data processing apparatus being responsive to the contextual correction file to read the contextual correction file to pass the data contained therein to said speech recognition engine.

22. [Once Amended] An editor work station as claimed in claim ~~19~~ 21 wherein said

recognition data includes a likelihood indicator for each [character] word in the [character] word string indicating the likelihood that the [character] word is correct, and said link data includes the likelihood indicators, said editor work station including editor automatic error detection means for detecting possible errors in recognition of [characters] words in the recognised [characters] words by scanning the likelihood indicators in said recognition data for the [characters] words and detecting if the likelihood indicator for a [character] word is below a likelihood threshold, whereby said editor display means highlights characters having a likelihood indicator below the likelihood threshold;

editor selection means for selecting a [character] word to replace an incorrectly recognised word highlighted in the [character] word string; and

second editor correction means for replacing the incorrectly recognised [character] word with the selected [character] word to correct the recognised [text] word.

28
23. [Once Amended] A data processing method comprising [the steps of]:

receiving recognition data [and corresponding audio data] from a speech recognition engine and corresponding audio data in an interface application program, said recognition data including a string of recognised [characters] words and audio identifiers identifying audio components corresponding to [text components in the recognised text] each recognised word;

storing the audio data;

inputting the recognised [characters to] words into a processing application program which places the words in positions in the application, and which processes the recognised words such that positions of the recognised words are changed [processor for the processing of the characters to at least one of replace, insert move and position the characters] to form a processed [character] word string;

using the interface application program to determine the positions of the recognised words in the processing application program, monitor changes in the positions of the recognised words, and to form [forming] link data linking the audio [identifiers] data to the [character component positions in the characters and updating said link data after processing to maintain the link between the audio identifiers and the character component positions in the processed character string] recognised words, said link data comprising the audio identifiers and the

determined positions of corresponding recognised words, said link data being updated in response to monitored changes in positions of the recognised words;

displaying the [characters] recognised words input to and processed by the processor application;

selecting at least one displayed [characters for audio playback] word, whereby said link data identifies any [selected] audio components, if present, which are linked to the at least one selected [characters] word; and

playing back [the] any selected audio components in the order of the [character component] word positions in the [character] word string.

29 28
~~24~~. [Once Amended] A method as claimed in claim ~~23~~ wherein the [characters,] words and the link data [and the audio data is] are also stored, the method including [the step of]: reading the stored [characters] words into the processor application program and reading the stored link data[, whereby any of the read characters can be selected for audio playback, the read back data links the selected read characters to any corresponding stored audio data, and corresponding audio data is read and played back].

30 28
~~25~~. [Once Amended] A method as claimed in claim ~~23~~ including [the steps of]: selecting any displayed [characters] words which [has] have been incorrectly recognised, playing back [any] an audio component corresponding to [the] any selected [characters] words to aid correction, correcting the incorrectly recognised [characters] words, and sending the corrected [characters] word and audio identifier for the audio component corresponding to the corrected [character] word to the speech recognition engine.

31 30
~~26~~. [Once Amended] A method as claimed in claim ~~25~~ wherein said recognition data includes alternative [characters,] words; the method [including the step of] includes displaying a choice list when any displayed [characters] words have been selected for correction, said choice list comprising said alternative [characters] words; and said [correcting step] correction of the incorrectly recognised words comprises selecting one of the alternative [characters] words or inputting a new [character] word.

59

33 28
~~27~~. [Once Amended] A method as claimed in claim ~~23~~ wherein said [link data comprises a list of character locations in the characters and] audio identifiers comprise a list of positions of the corresponding audio components in the audio data.

34 33
~~28~~. [Once Amended] A method as claimed in claim ~~27~~ wherein said [text] word string is formed of a plurality of separately dictated passages of [characters] words, the method including [the steps of]: storing said audio data for each dictated passage of [characters] words in separate files, said link data including a list identifying the files and positions in the files of the audio components in said audio data corresponding to the word locations in the [characters] word string.

35 28
~~29~~. [Once Amended] A method as claimed in claim ~~23~~ wherein said recognition data includes recognition status indicators to indicate whether each recognised [character] word is a [character] word finally selected as recognised by said speech recognition engine or a [character] word which is the most likely at that time but which is still being recognised by said speech recognition engine, the method including [the steps of]: detecting said recognition status indicators, displaying [characters] words which are still being recognised differently to the [characters] words which have been recognised, and forming said link data by linking the positions of the recognised [characters] words in the [characters] word string to the positions of the corresponding audio components in the audio data.

32 30
~~30~~. [Once Amended] A method as claimed in claim ~~25~~ including [the steps of]: selecting recognised [characters] words which are to be used to provide contextual correcting parameters to said speech recognition engine, and sending the contextual correcting parameters to said speech recognition engine.

36 28
~~31~~. [Once Amended] A method as claimed in claim ~~23~~ wherein said recognition data includes a likelihood indicator for each [character] word in the [characters] word string indicating the likelihood that the [character] word is correct, the method including [the steps of]:

detecting possible errors in recognition of [characters] words in the [characters] word

60

string by scanning the likelihood indicators for the [characters] recognised words, and detecting if the likelihood indicator for a [character] word is below a likelihood threshold;

highlighting the [character] word having a likelihood indicator below the likelihood threshold;

if the highlighted [character] word is an incorrectly recognised [character] word, selecting a [character] word to replace an incorrectly recognised [character] word highlighted in the [characters] recognised words; and

replacing the incorrectly recognised [character] word with the selected [character] word to correct the [characters] recognised words.

37 28
~~32~~. [Once Amended] A method as claimed in claim ~~23~~ including [the steps of ]:

storing the [characters] recognised words as a file;

selectively disabling one of the importation of recognised [characters] words into the processor application program and the recognition of speech by said speech recognition engine for a period of time;

storing the audio data [for] during the period of time as an audio message associated with the file;

at a later time, reading said file for input to the processor application program; and

allowing a user to select whether to read and playback said audio message associated with said file.

39 28
~~34~~. [Once Amended] A method as claimed in claim ~~23~~ including [the step of] allowing a user to select to playback the audio data for the most recent passage of dictated [characters] words.

40
~~35~~. [Once Amended] A method of processing data comprising [the steps of]:

at an author work station, carrying out the method as claimed in claim ~~23~~ 28 wherein the [characters] recognised words, the link data and the audio data [is] are stored; and

at an editor work station, obtaining the stored [characters] recognised words, link data and audio data from the author work station;

inputting the [characters] recognised words into a processor application program;

linking the audio data to the [character component] word positions using the link data;

displaying the [characters] words being processed;

selecting any displayed [characters] words which have been incorrectly recognised;

playing back any audio component corresponding to the selected [characters] words to aid correction;

correcting the incorrectly recognised [characters] words;

storing the corrected [characters] word and the audio identifier for the audio component corresponding to the corrected [character] word in a [character] word correction file; and

transferring the [character] word correction file to the author work station for later updating of models used by said speech recognition engine;

wherein, at a later time, said [character] word correction file is read at said author work station to pass the data contained therein to said speech recognition engine for updating of said models.

41
~~36~~. [Once Amended] A method as claimed in claim ~~35~~ 40 wherein said recognition data includes alternative [characters] words, and the [correcting step] correction of the incorrectly recognised words at said editor work station, [comprising the steps of] comprises: displaying a choice list comprising the alternative [characters] words, and selecting one of the alternative [characters] words or entering a new [character] word.

42
~~37~~. [Once Amended] A method as claimed in claim ~~35~~ 40 including [the steps] at said editor work station [of]: selecting recognised [characters] words which are to be used to provide contextual correcting parameters to said speech recognition engine at said author work station;

storing said contextual correcting parameters in a contextual correction file; and

transferring said contextual correction file to said author work station for later updating of models used by said speech recognition engine; and

at said author work station, at a later time, reading the transferred contextual correction file and passing the data contained therein to said speech recognition engine.

62

43 ~~38~~. [Once Amended] A method as claimed in claim 40 ~~35~~ wherein said recognition data includes a likelihood indicator for each [character] word in the [characters] word string indicating the likelihood that the [character] word is correct, the method including [the steps] at said editor work station [of]:

automatically detecting possible errors in recognition of [characters] words by scanning the likelihood indicators for the [characters] words;

detecting if the likelihood indicator for a [character] word is below a likelihood threshold, whereby [characters] words having a likelihood indicator below the likelihood threshold are displayed highlighted;

selecting a [character] word to replace an incorrectly recognised [character] word highlighted in the [characters] word string; and

replacing the incorrectly recognised [character] word with the selected [character] word to correct the [characters] recognised words.

44 ~~39~~. [Once Amended] A method as claimed in claim 40 ~~35~~ wherein the method includes [the steps of]:

at said author work station, storing the [characters] words as a file;

selectively disabling one of the importation of recognised [characters] words into the processor application program and the recognition of speech by said speech recognition engine for a period of time;

storing the audio data for the period of time as an audio message associated with the file;

at a later time, reading said file for input to the processor application program; and,

at said editor work station, reading the audio message associated with the file being processed by the processor application program, and playing back the read audio message.

45 ~~40~~. [Once Amended] A method as claimed in claim 44 ~~39~~ wherein the audio message can be read and played back at any time said file is open in the processor application program.

46 ~~41~~. [Once Amended] A method as claimed in claim 40 ~~35~~ including [the step of] allowing a user of the editor work station to playback the audio data for the most recent passage of dictated

[characters] words.

~~12~~ 25. [Once Amended] A data processing arrangement as claimed in claim ~~13~~ 15 comprising a plurality of said data processing apparatus connected to a network, and at least one editor work station, wherein each editor work station can access and edit stored [characters] words and audio data on a plurality of said data processing apparatus.

~~12~~ 51. [Once Amended] A computer usable medium having computer readable instructions stored therein for causing a processor in a data processing apparatus to process recognition signals defining a string of [characters] recognised words and corresponding audio data signals to display the [characters] words and selectively play the audio data, the instructions comprising instructions for:

a) causing the processor to receive the recognition signals from a speech recognition engine and the audio data signals, the recognition signals including a string of recognised [characters] words and audio [identifier] identifiers identifying [the] audio components corresponding to each [character components in the] recognised [characters] word;

b) causing the processor to store the audio data;

[b)] c) causing the processor to [process the signals to manipulate the characters] implement an interface application program which receives the recognised words and places the words in positions in a processing application program which can process the recognised words such that the positions of the recognised words are changed to form a processed word string;

d) causing the processor to implement the interface application program to determine the positions of the recognised words in the processing application program and to monitor changes in the positions of the recognised words;

[c)] e) causing the processor to implement the interface application program [process the signals] to form link data linking the audio [identifier] data to the [character component positions in the character string] recognised words, wherein said link data comprises the audio identifiers and the determined positions of corresponding recognised words, and to update said link data in response to monitored changes in positions of the recognised words;

[d)] f) causing the processor to generate an image of the [characters] recognised

words on a display;

[e)] g) causing the processor to receive a selection signal generated by a user for selecting at least one word and to identify [any] audio components corresponding to the at least one selected [characters] word; and

[f)] h) causing the processor to send the identified audio components in the order of the [character component] word positions in the [characters] word string to an audio play back device.

Please add the new claims 63-97:

~~63.~~ [New] Data processing apparatus comprising:

input means for receiving recognition data and corresponding audio data from a speech recognition engine, said recognition data including a string of recognised characters and audio identifiers identifying audio components corresponding to a character component of the recognised characters;

storage means for storing said audio data received from said input means;

processing means for receiving and processing the input recognised characters to at least one of replace, insert move and position the recognised characters to form a processed character string;

link means for forming link data linking the audio identifiers to the character component positions in the character string and for updating said link data after processing to maintain the link between the audio identifiers and the character component positions in the processed character string;

display means for displaying the characters received by said processing means;

user operable selection means for selecting characters in the displayed characters for audio playback, where said link data identifies any selected audio components, if present, which are linked to the selected characters;

audio playback means for playing back the selected audio components in the order of the character component positions in the character string or the processed character string;

file storage means for storing the recognised characters in a file;

means for selectively disabling one of the receipt of the recognised characters by said processing means and the recognition of speech by said speech recognition engine for a period of time, means for storing the audio data for the period of time in said storage means as an audio message associated with the file; and

storage reading means for reading said file for input to said processing means, and for reading said audio message for playback by said audio playback means.

53 52
~~64~~. [New] Data processing apparatus as claimed in claim ~~63~~ wherein said storage reading means is controllable by a user to read said audio message at any time after said file has been input to said processing means until said processing means is no longer processing said file.

54
~~65~~. [New] A data processing arrangement comprising:

a data processing apparatus, the data processing apparatus comprising:

input means for receiving recognition data and corresponding audio data from a speech recognition engine, said recognition data including a string of recognised characters and audio identifiers identifying audio components corresponding to a character component of the recognised characters;

processing means for receiving and processing the input recognised characters to at least one of replace, insert move and position the recognised characters to form a processed character string;

link means for forming link data linking the audio identifiers to the character component positions in the character string and for updating said link data after processing to maintain the link between the audio identifiers and the character component positions in the processed character string;

storage means for storing said recognition data and audio data received from said input means, and for storing said link data;

display means for displaying the characters received by said processing means;

user operable selection means for selecting characters in the displayed characters for audio playback, where said link data identifies any selected audio components, if present, which are linked to the selected characters; and

66

audio playback means for playing back the selected audio components in the order of the character component positions in the character string or the processed character string;

file storage means for storing the recognised characters in a file;

means for selectively disabling one of the receipt of the recognised characters by said processing means and the recognition of speech by said speech recognition engine for a period of time with means for storing the audio data for the period of time in said storage means as an audio message associated with the document;

storage reading means for reading said document for input to said processing means, and for reading said audio message for playback by said audio playback means; and

an editor work station comprising:

data reading means for reading the characters, link data, and audio data from said data processing apparatus;

editor processing means for processing the characters;

editor link means for linking the audio data to the character component position using the link data;

editor display means for displaying the characters being processed;

editor correction means for selecting and correcting any displayed characters which have been incorrectly recognised;

editor audio playback means for playing back any audio component corresponding to the selected characters to aid correction;

editor speech recognition update means for storing the corrected characters and the audio identifier for the audio component corresponding to the corrected character in a character correction file;

data transfer means for transferring the character correction file to said data processing apparatus for later updating of models used by said speech recognition engine; and

audio message reading means for reading the audio message associated with characters being processed by said editor processing means for playback by said editor audio playback means;

said data processing apparatus including correction file reading means for reading said character correction file to pass the data contained therein to said speech recognition engine for

the updating of the models used by said speech recognition engine.

55 54
~~66.~~ [New] A data processing arrangement as claimed in claim ~~65~~ wherein said audio message reading means is controllable by a user to read said audio message at any time the associated characters are being processed by said editor processing means.

Sub C2 56
~~67.~~ [New] A data processing method comprising the steps of:

receiving recognition data and corresponding audio data from a speech recognition engine, said recognition data including recognised characters and audio identifiers identifying audio components corresponding to text components in the recognised text;

storing the audio data;

inputting the recognised characters to a processor for the processing of the characters to at least one of replace, insert move and position the characters to form a processed character string;

forming link data linking the audio identifiers to the character component positions in the characters and updating said link data after processing to maintain the link between the audio identifiers and the character component positions in the processed character string;

displaying the characters input to the processor;

selecting displayed characters for audio playback, whereby said link data identifies any selected audio components, if present, which are linked to the selected characters;

playing back the selected audio components in the order of the character component positions in the character string;

storing the characters as a file;

selectively disabling one of the importation of recognised characters into the processor and the recognition of speech by said speech recognition engine for a period of time;

storing the audio data for the period of time as an audio message associated with the file;

at a later time, reading said file for input to the processor; and

allowing a user to select whether to read and playback said audio message associated with said file.

68

57 54
~~68~~. [New] A method as claimed in claim ~~67~~ wherein said audio message can be read and played back at any time said file is open in the processor.

58
~~69~~. [New] A method of processing data comprising:

at an author work station:

receiving recognition data and corresponding audio data from a speech recognition engine, said recognition data including recognised characters and audio identifiers identifying audio components corresponding to text components in the recognised text;

storing the audio data;

inputting the recognised characters to a processor for the processing of the characters to at least one of replace, insert move and position the characters to form a processed character string;

forming link data linking the audio identifiers to the character component positions in the characters and updating said link data after processing to maintain the link between the audio identifiers and the character component positions in the processed character string;

displaying the characters input to the processor;

selecting displayed characters for audio playback, whereby said link data identifies any selected audio components, if present, which are linked to the selected characters; and

playing back the selected audio components in the order of the character component positions in the character string; wherein the characters, the link data, and the audio data are stored; and

at an editor work station:

obtaining the stored characters, link data and audio data from the author work station;

inputting the characters into a processor;

linking the audio data to the character component positions using the link data;

displaying the characters being processed;

selecting any displayed characters which have been incorrectly recognised;

playing back any audio component corresponding to the selected characters to aid correction;

correcting the incorrectly recognised characters;

storing the corrected characters and the audio identifier for the audio component

69

corresponding to the corrected character in a character correction file; and

transferring the character correction file to the author work station for later updating of models used by said speech recognition engine;

wherein, at a later time, said character correction file is read at said author work station to pass the data contained therein to said speech recognition engine for updating of said models;

wherein, at said author work station, storing the characters as a file;

selectively disabling one of the importation of recognised characters into the processor and the recognition of speech by said speech recognition engine for a period of time;

storing the audio data for the period of time as an audio message associated with the file; and

at a later time, reading said file for input to the processor; and

at said editor work station, reading the audio message associated with the file being processed by the processor, and playing back the read audio message.

70. [New] A method as claimed in claim 69 wherein the audio message can be read and played back at any time said file is open in the processor.

71. [New] A universal speech-recognition interface that enables operative coupling of a speech-recognition engine to at least any one of a plurality of different computer-related applications, the universal speech-recognition interface comprising:

input means for receiving speech-recognition data including recognised words;

output means for outputting the recognised words into at least any one of the plurality of different computer applications to allow processing of the recognised words as input text; and

audio playback means for playing audio data associated with the recognised words.

61 60
72. [New] The universal speech-recognition interface of claim 71, further comprising:

means, independent of the one computer application, for forming link data linking a portion of the audio data to at least one the recognised words independently of the one computer application, the link data comprising:

one or more audio identifiers which link a portion of the audio data to one or more recognised words; and

one or more position identifiers which link the recognised words to corresponding positions within the one computer application; and

means, independent of the one computer application, for updating the position identifiers in response to changes in positions of the recognised words within the one computer application.

62 60
73. [New] The universal speech-recognition interface of claim 71 further comprising:

user operable selection means for selecting one or more of the recognised words in the one computer application, wherein the audio playback means is responsive to the selection to playback associated audio data.

63 60
74. [New] The universal speech-recognition interface of claim 71 wherein the plurality of different computer applications includes a wordprocessing application and at least one of a spreadsheet processing application, an electronic-mail application, a presentation application, and a computer-aided-design application.

64
75. [New] A speech-recognition interface that enables operative coupling of a speech-recognition engine to a computer-related application, the interface comprising:

input means for receiving speech-recognition data including recognised words;

output means for outputting the recognised words into a computer application to allow processing of the recognised words as input text, including changing positions of the recognised words; and

means, independent of the computer-related application, for determining positions of the recognised words in the computer-related application.

65 64
76. [New] The speech-recognition interface of claim ~~75~~, further comprising:
means, independent of the computer-related application, for monitoring changes in positions of the recognised words in the computer-related application.

sub C4 66 64
77. [New] The speech-recognition interface of claim ~~75~~, further comprising:
means, independent of the one computer application, for forming link data linking a portion of the audio data to at least one of the recognised words independently of the computer-related application, the link data comprising:
one or more audio identifiers which link a portion of the audio data to one or more recognised words; and
one or more position identifiers which link the recognised words to corresponding positions within the computer-related application; and
means, independent of the one computer application, for updating the position identifiers in response to changes in positions of the recognised words within the one computer application.

67 64
78. [New] The speech-recognition interface of claim ~~75~~, further comprising:
audio playback means for playing audio data associated with the recognised words.

sub C5 68 67
79. [New] The universal speech-recognition interface of claim ~~78~~, further comprising:
user operable selection means for selecting one or more of the recognised words in the computer-related application, wherein the audio playback means is responsive to the selection to playback associated audio data.

13
80. [New] Data processing apparatus as claimed in claim 1 wherein said interface application program means is operative to determine and monitor the positions of the recognised words by determining and monitoring the position of a first letter of each of the recognised words in text of said processing application program means, and said link data comprises the audio identifiers and the determined positions of the first letter of corresponding recognised words.

71

24 15
~~81~~. [New] A data processing arrangement as claimed in claim ~~13~~ wherein said interface application program means is operative to determine and monitor the positions of the recognised words by determining and monitoring the position of a first letter of each of the recognised words in text of said processing application program means, and said link data comprises the audio identifiers and the determined positions of the first letter of corresponding recognised words.

14
~~82~~. [New] Data processing apparatus as claimed in claim 1 further comprising processing means operative under the control of a computer operating system, wherein said interface application program means comprises an interface application program implemented from within said computer operating system, said processing application program means comprises a processing application program implemented from within said computer operating system, and said interface application program is operative to determine and monitor the positions of the recognised words using operating system functions communicated via the computer operating system.

27 arrangement 15
~~83~~. [New] Data processing ~~apparatus~~ as claimed in claim ~~13~~ further comprising processing means operative under the control of a computer operating system, wherein said interface application program means comprises an interface application program implemented from within said computer operating system, said processing application program means comprises a processing application program implemented from within said computer operating system, and said interface application program is operative to determine and monitor the positions of the recognised words using operating system functions communicated via the computer operating system.

49 28
~~84~~. [New] A data processing method as claimed in claim ~~23~~ wherein the positions of the recognised words are determined and monitored by determining and monitoring the position of a first letter of each of the recognised words in text of the processing application program, and said link data comprises the audio identifiers and the determined positions of the first letter of corresponding recognised words.

47 40
~~85~~. [New] A method as claimed in claim ~~35~~ wherein the positions of the recognised words are determined and monitored by determining and monitoring the position of a first letter of each of the recognised words in text of the processing application program, and said link data comprises the audio identifiers and the determined positions of the first letter of corresponding recognised words.

50 28
~~86~~. [New] A method as claimed in claim ~~23~~ wherein the interface application program and the processing application program are both implemented from within a computer operating system, and the positions of the recognised words in said processing application program are determined and monitored using operating system functions communicated via the computer operating system.

48 40
~~87~~. [New] A method as claimed in claim ~~35~~ wherein the interface application program and the processing application program are both implemented from within a computer operating system, and the positions of the recognised words in said processing application program are determined and monitored using operating system functions communicated via the computer operating system.

49
~~88~~. [New] Data processing apparatus comprising

input means for receiving recognition data from a speech recognition engine and corresponding audio data, said recognition data including a string of recognised words and audio identifiers identifying audio components corresponding to each of the recognised words;

processing means for implementing an interface application program which receives the input recognised words, inputs the recognised words into a processing application program to process the input recognised words to cause the recognised words to be moved, and forms link data linking the audio data to the recognised words, said link data comprising the audio identifiers and information identifying the corresponding recognised words;

display means for displaying the words received and processed by said processing application program;

user operable selection means for selectively identifying a word in the displayed words,

wherein said interface application program is operative to compare the identity of the selected word with said link data to identify any corresponding audio component; and

audio playback means for playing back any identified corresponding audio component.

70 89. [New] Data processing apparatus as claimed in claim 88 69 including storage means for storing said link data, and said audio data.

71 90. [New] A data processing method comprising:

inputting recognition data from a speech recognition engine and corresponding audio data, said recognition data including a string of recognised words and audio identifiers identifying audio components corresponding to each of the recognised words;

inputting the recognised words to a processor implementing an interface application program to receive the input recognised words, to pass the recognised words to a processing application program for processing the recognised words to cause the recognised words to be moved, and to form link data linking the audio data to the recognised words, said link data comprising the audio identifiers and information identifying the corresponding recognised words;

displaying the recognised words input to and processed by the processor application program;

selectively identifying a word in the displayed words;

using the interface application program to compare the identity of the selected word with said link data to identify any corresponding audio component; and

playing back any identified corresponding audio component.

72 91. [New] A method as claimed in claim 90 71 including storing the audio data and the link data.

73
~~92~~. [New] A computer usable medium having computer readable instructions stored therein for causing a processor in a data processing apparatus to process recognition signals defining a string of recognised words and corresponding audio data to display the words and selectively play the audio data, the instructions comprising instructions for:

a) causing the processor to input the recognition signals from a speech recognition engine and the audio data, the recognition signals including a string of recognised words and audio identifiers identifying audio components corresponding to each recognised word;

b) causing the processor to implement an interface application program to receive the input recognised words and to input the recognised words into a processing application program to process the recognised words to cause the recognised words to be relatively moved;

c) causing the processor to implement the interface application program to form link data linking the audio data to the recognised words, said link data comprising the audio identifiers and information identifying the corresponding recognised words;

d) causing the processor to generate an image of the recognised words on a display;

e) causing the processor to receive a selection signal generated by a user for selectively identifying a word in the displayed words;

f) causing the processor to implement the interface application program to compare the identity of the selected word with said link data to identify any corresponding audio component; and

g) causing the processor to send the identified corresponding audio component to an audio playback device.

74
~~93~~. [New] A computer usable medium as claimed in claim ~~92~~ 73 wherein the instructions include instructions for causing the processor to store said link data and said audio data.

75

75
~~94~~. [New] Data processing apparatus comprising:

input means for receiving recognition data from a speech recognition engine and corresponding audio data, said recognition data including a string of recognised words and audio identifiers including audio components corresponding to each recognised word;

storage means for storing the audio data received from said input means;

processing means operative under the control of an operating system to implement a first application program which receives the input recognised words in text positions, and which processes the recognised words such that the positions of the recognised words are changed to form a processed word string, and a second application program which determines the positions of and monitors changes in the positions of the recognised words in said first application program using operating system functions communicated via the computer operating system, and which forms link data linking the audio data to the recognised words and updates said link data in response to monitored changes in the positions of the recognised words, said link data comprising the audio identifiers and the determined positions of corresponding recognised words;

display means for displaying the recognised words;

user operable selection means for selecting at least one word in the displayed words, wherein said second application program is operative to identify any selected audio components, if present, which are linked to the at least one selected word; and

audio playback means for playing back any selected audio component.

76 75
~~95~~. [New] Data processing apparatus as claimed in claim ~~94~~ including means operable by a user to allow the selection of said second application program from amongst a plurality of application programs implementable within the computer operating system.

76

77
~~96~~. [New] A data processing method comprising:

inputting recognition data from a speech recognition engine and corresponding audio data, said recognition data including a string of recognised words and audio identifiers identifying audio components corresponding to each of the recognised words;

storing the audio;

implementing a first application program within a computer operating system to receive the input recognised words in text positions, and to process the recognised words such that the positions of the recognised words are changed to form a processed word string;

implementing a second application program from within the computer operating system to determine the positions of the recognised words and monitor changes in the positions of the recognised words in the first application program using operating system functions communicated via the computer operating system, to form link data linking the audio data to the recognised words, and to update the link data in response to monitored changes in the positions of the recognised words, wherein said link data comprises the audio identifiers and the determined positions of corresponding recognised words;

displaying the recognised words;

selecting at least one word in the displayed words, wherein the second application program identifies any selected audio components, if present, which are linked to the at least one selected word; and

playing back any selected audio component.

78
~~97~~. [New] A method as claimed in claim ~~96~~ 77 including selecting the second application program from amongst a plurality of possible application programs implementable within the computer operating system.

77